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EXAMINER

LIN, KENNY S

ART UNIT PAPER NUMBER

2154

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,567

Applicant(s)

BRADLEY ET AL.

Examiner

Kenny Lin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-2, 4-8, 10-14 and 16-22 are presented for examination. Claims 3, 9 and 15 are cancelled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following term lacks proper antecedence basis:

- i. Claim 22, line 1 – a metric test (i.e., the metric test).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 6-7, 10, 12-13, 16, 18-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shurmer et al (hereinafter Shurmer), US 5,974,237, in view of St.

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Laurent (hereinafter Laurent), Describing your Data: DTDs and XML Schemas, December 1, 1999, O'Reilly XML.com.

6. Shurmer and Laurent were cited in the previous office action.

7. As per claims 1, 7 and 19, Shurmer taught the invention substantially as claimed including a method for monitoring a level of network service offered by a service provider, the method comprising the computer-implemented steps of:

- a. Monitoring a service level contract between the service provider and a particular customer (col.7, lines 42-46, col.8, lines 3-14, col.14, lines 39-48);
- b. data defining one or more metric tests for monitoring the level of network service being provided to a particular customer by the service provider, each said metric test measuring a level of service of a particular type of network operation, and including a set of one or more threshold values that correspond to a range of acceptable performance for the particular type of network operation (col.1, lines 47-60, col.6, lines 57-67, col.7, lines 1-9, col.8, lines 3-14, col.14, lines 39-48, col.16, lines 39-43, col.20, lines 52-56, col.21, lines 18-25, 50-53, col.25, lines 57-67, col.26, lines 1-3, 40-52); and
- c. information defining a specific time range for when the one or more metric tests are to be performed (col.16, lines 35-46);
- d. Distributing the one or more metric tests to one or more agents, wherein the one or more agents configure devices associated with the network (col.16, lines 35-46,

col.17, lines 48-67, col.18, lines 1-31, col.20, lines 52-56) to automatically perform the one or more metric tests within the specific time range (col.13, lines 19-28, col.16, lines 35-46, col.18, lines 32-40) and receive result information from the devices performing the one or more metric tests (col.7, lines 42-52, col.8, lines 15-20, col.18, lines 27-31).

8. Shurmer further taught to collect a plurality of user input operational parameters into a monitoring session or class (col.2, lines 50-64, col.17, lines 19-45; e.g., schema causes configuration for monitoring). Shurmer did not specifically teach receiving a schema that provides a configuration for monitoring a service level contract, wherein the schema comprises data. Laurent taught that XML schemas can carry information, describe what different elements should contain and how they should be used (What DTD and XML Schemas Do). It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry operational parameters and their descriptions using XML schemas. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer and Laurent because Laurent's teaching of using XML schemas helps Shurmer's method to collect and carry the operational parameters, their descriptions of components and elements in data structures in preparing the network monitoring (Shurmer, col.20, lines 52-57).

9. As per claim 13, Shurmer taught the invention substantially as claimed including a network device configured for monitoring a level of network service provided by a service provider, comprising:

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- a. A network interface (col.5, lines 37-38);
- b. A processor coupled to the network interface and receiving information from the network interface (col.5, lines 27-45);
- c. A computer-readable medium accessible by the processor and comprising one or more sequences of instructions (inherently known feature) which, when executed by the processor, cause the processor to carry out the steps of:
 - i. Monitoring a service level contract between the service provider and a particular customer (col.7, lines 42-46, col.8, lines 3-14, col.14, lines 39-48);
 - ii. data defining one or more metric tests for monitoring the level of network service that is being provided to a particular customer by the service provider, each said metric test measuring a level of service of a particular type of network operation, and including a set of one or more threshold values that correspond to a range of acceptable performance for the particular type of network operation (col.1, lines 47-60, col.6, lines 57-67, col.7, lines 1-9, col.8, lines 3-14, col.14, lines 39-48, col.16, lines 39-43, col.20, lines 52-56, col.21, lines 18-25, 50-53, col.25, lines 57-67, col.26, lines 1-3, 40-52) and information defining a specific time range for when the one or more metric tests are to be performed (col.16, lines 35-46); and
 - iii. Distributing the one or more metric tests to one or more agents, wherein the one or more agents configure devices associated with the network (col.17, lines 48-67, col.18, lines 1-31, col.20, lines 52-56) to perform the

one or more metric tests during the specific time range (col.13, lines 19-28, col.16, lines 35-46, col.18, lines 32-40) and receive result information from the devices performing the one or more metric tests (col.7, lines 42-52, col.8, lines 15-20, col.18, lines 27-31).

10. Shurmer further taught to collect a plurality of user input operational parameters into a monitoring session or class (col.2, lines 50-64, col.17, lines 19-45; e.g., schema causes configuration for monitoring). Shurmer did not specifically teach receiving a schema that provides a configuration for monitoring a service level contract, wherein the schema comprises data. Laurent taught that XML schemas can carry information, describe what different elements should contain and how they should be used (What DTD and XML Schemas Do). It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry operational parameters and their descriptions using XML schemas. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer and Laurent because Laurent's teaching of using XML schemas helps Shurmer's method to collect and carry the operational parameters, their descriptions of components and elements in data structures in preparing the network monitoring (Shurmer, col.20, lines 52-57).

11. As per claims 4, 10 and 16, Shurmer and Laurent taught the invention substantially as claimed in claims 1, 7 and 13. Shurmer further taught to monitor service level contract using operational parameters (col.7, lines 42-46, col.8, lines 3-14, col.14, lines 39-48). Shurmer did not specifically teach that the schema models the service level contract and is based on XML.

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Laurent taught that XML schemas, based on XML, could carry information, describe what different elements should contain and how they should be used (What DTD and XML Schemas Do; carrying descriptions which define the service level contract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry operational parameters and their descriptions using XML schemas to define the service level contract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer and Laurent because Laurent's teaching of using XML schemas helps Shurmer's method to collect and carry the operational parameters, their descriptions of components and elements in data structures according to a service level contract in preparing network monitoring (Shurmer, col.20, lines 52-57).

12. As per claims 6, 12 and 18, Shurmer and Laurent taught the invention substantially as claimed in claims 1, 7 and 13. Shurmer further taught that one or more agents configure the devices to perform the one or more metric tests only within the specific time range (col.13, lines 19-28, col.16, lines 35-45).

13. As per claim 21, Shurmer and Laurent taught the invention substantially as claimed in claim 1. Shurmer further taught that the range of threshold values included with a particular metric test is configured according to a level of performance specified in a service level agreement for the type of network operation measured by the particular metric test (abstract, col.1, lines 47-63, col.8, lines 3-9, col.21, lines 18-25, 50-53, col.25, lines 57-67, col.26, lines 1-3, 40-52).

14. Claims 2, 8, 14, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shurmer and Laurent as applied to claims 1, 7, 13 and 19 above, and further in view of "Official Notice".

15. As per claims 2, 8, 14 and 20, Shurmer and Laurent taught the invention substantially as claimed in claims 1, 7, 13 and 19. Shurmer further taught to include the steps of:

- a. For each metric test defined in the schema, determining whether result information for that metric test is within the range of acceptable values defined by the set of one or more threshold values included with that metric test (It is inherent that the result information is within the range of acceptable values since the monitoring is within the range of the operational parameters input by the users);
- b. Creating and storing reporting information based on determinations from the devices during the specific time range (col.7, lines 42-52, col.8, lines 15-20, col.16, lines 35-48, col.20, lines 59-67, col.21, lines 1-3, col.23, lines 46-56).

16. Shurmer further taught to monitor service parameter which describes a service supported, performance of each network element, capacity, availability and errors (col.6, lines 57-67, col.7, lines 1-9). Shurmer and Laurent did not specifically teach to that the report indicates whether the customer is actually receiving the level of network service offered by the service provider in the service level contract base on the result information received form the devices. However, since

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Shurmer taught to perform tests to monitor service parameter, it is obvious to use the result of the tests to determine whether the customer is actually receiving service according to what is agreed on the service level contract. Official Notice is taken that it is obvious to create and store reports base on obtained test results and determine various statistics using the results. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer and further use the test results from Shurmer's system to determine various statistics and also whether services provided to the customers is according to the contract agreement to ensure quality of service to the customers.

17. As per claim 22, Shurmer and Laurent taught the invention substantially as claimed in claim 1. Shurmer and Laurent did not specifically teach that the metric test is selected from the group consisting of ICMP metric test, UDP metric test, DNS metric test, HTTP metric test and VoIP metric test. Official Notice is taken that the limitations narrowed by this claim is considered obvious and furthermore a matter of design choice, since applicants have not disclosed that the claimed limitations solve any stated problem or are of any particular purpose and it appears that the invention would perform equally well without these claimed features. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to efficiently utilize the claimed method with various types of metric tests.

18. Claims 5, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shurmer and Laurent as applied to claims 1, 7, and 13 above, and further in view of Schuster et al (hereinafter Schuster), US 6,363,053.

19. Schuster was cited in the previous office action.

20. As per claims 5, 11 and 17, Shurmer and Laurent taught the invention substantially as claimed in claims 1, 7 and 13. Shurmer further taught to allow users to define specific times for monitoring the level of service that is being provided by the service provider (col.13, lines 19-28, col.16, lines 35-45) and to configure the set of one or more threshold values included with each metric test (input user operational parameters for monitoring service level contract; col.7, lines 42-46, col.8, lines 3-14, col.14, lines 39-48). Laurent further taught to use XML Schemes to provide configuration for monitoring a service level contract (see claim 1 rejection). Shurmer and Laurent did not specifically teach to further comprising the steps of:

- a. Generating, at a server, interface data for defining the schema for monitoring the service level contract; and
- b. Communicating the interface data to a client that is remote from said server, wherein the interface data allows users to configure specific times for monitoring.

21. Schuster taught to generate, at a server, interface data for defining a service level contract (col.1, lines 61-67, col.2, lines 1-18, 62-65, col.5, lines 8-12) and to communicate the interface data to a client that is remote from the server (col.5, lines 8-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer, Laurent and Schuster because Schuster's teaching of generating interface data defining a service level contract help Shurmer and Laurent's method to define the one or more tests for

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monitoring the level of network into schemes according to a specific time frame that the customers stated in the contract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shurmer, Laurent and Schuster because Schuster's teaching of communicating the interface data allows Shurmer's users to define specific times for monitoring the level of service using the interface data (col.13, lines 19-28, col.16, lines 35-39).

Response to Amendment

22. Applicant's arguments filed 4/4/2005 have been fully considered but they are not persuasive.

23. In the remark, applicant argued that: (1) Shurmer does not teach or suggest metric test for measuring a level of service. (2) Shurmer does not teach or suggest measuring a level of service of a particular type of network operation. (3) Shurmer does not teach or suggest a metric test including a set of one or more threshold values. (4) Shurmer does not teach or suggest distributing metric tests to agent, and agents configuring devices to automatically perform metric tests.

24. Examiner traverse the argument that:

As to point (1), Shurmer taught to monitoring a service level contract between the service provider and a particular customer (col.7, lines 42-46, col.8, lines 3-14, col.14, lines 39-48; monitoring of a communications network at the network or service levels...) by inputting

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operational parameter to be tested (e.g., operational parameters are input in order to carry out certain tests) and the operational parameters cause to monitor the level of network service being provided to a particular customer by the service provider including switching capacity, bandwidth and slot availability (col.6, lines 57-67, col.7, lines 1-9, col.8, lines 3-14, col.14, lines 39-48). Although Shurmer reference does not specifically use the word “metric”, the reference showed the monitoring step to measure the level of service of a particular type of network operation by using the operational parameters (abstract, col.1, lines 47-63, col.8, lines 3-9, col.21, lines 18-25, 50-53). The operational parameter or sets of operational parameters defined in Shurmer reference relate to the performance of particular network operations (abstract, col.1, lines 47-63). Shurmer further taught use a diagnostic tool for monitoring (col.8, lines 3-9). As to point (2), Shurmer taught to measure a level of service of a particular type of network operation by monitoring the performance of individual components (col.25, lines 57-67, col.26, lines 1-3, 40-52).

As to point (3), Shurmer taught to define metric tests by inputting a set of operational parameters to be monitored (e.g., threshold values to be compared or measured; col.25, lines 57-67, col.26, lines 1-3, 40-52). The operational parameter or sets of operational parameters relate to the performance of particular network operations (abstract, col.1, lines 47-63, col.21, lines 18-25, 50-53).

As to point (4), this was addressed in the previous office action. Shurmer taught to distributing the a test to a agent, wherein the agent configure devices associated with the network (col.17, lines 48-67, col.18, lines 1-31, col.20, lines 52-56; performance data session server application) to automatically perform the metric test during the specific time range (col.13, lines 19-28,

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col.16, lines 35-46, col.18, lines 32-40; time window specified by the user for performing the metric test) and receive result information from the devices performing the one or more metric tests (col.7, lines 42-52, col.8, lines 15-20, col.18, lines 27-31; receive responses).

Because Applicants have failed to challenge any of the Examiner's "Official Notices" stated in the previous office action in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Caswell et al, US 6,336,138.

Adriaans et al, US 6,311,175.

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl
May 26, 2005

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